

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested.

Applicants note with appreciation the Examiner's indication that Claims 23, 24, 36, and 37 would be allowable if rewritten in independent form including all of the limitations of the respective base claims and any intervening claims from which they respectively depend.

Claims 1-47 are pending, wherein Claims 1, 13, 26, and 39 are independent. Claim 39 has been amended. In addition, the drawings have been amended, the specification has been amended, and the abstract has been amended.

In response to the objection that the abstract contains more than 150 words, the abstract has been amended by abridging the original abstract. As amended, the abstract now contains less than 150 words. No new matter has been added.

In response to the objection that the drawings do not show a sensor, a processor, and a memory, Figure 5A has been added. Figure 5A is a block diagram of the server 510 and a flow monitor 505, and as such, it naturally complements Figure 5. The server 510 includes a server processor 520 and a memory 525. The flow monitor 505 includes a sensor 530 and a monitor processor 535. In conjunction with that addition of Figure 5a, paragraphs 0020 and 0037 of the specification have been amended to include a description of Figure 5A. The addition of Figure 5A does not constitute new matter, and the corresponding descriptions in paragraph 002 and 0037 do not constitute new matter, because the depiction of the server comprising a processor and a memory and the depiction of a flow monitor comprising a

sensor is disclosed in the originally-filed application, for example, at paragraph 0037, lines 2-9; at paragraph 0042, lines 1-13; and at Claims 13 and 26. In addition, it is noted that it is understood by those of skill in the art that a computer server necessarily comprises a processor and a memory, and that a monitor necessarily comprises a processor. Thus, no new matter has been added.

In response to the objection that the specification fails to provide proper antecedent basis for claimed subject matter from Claims 16 and 29, paragraph 0042 of the specification has been amended to include a description of the alarm device being integral with a processor. The amendment of paragraph 0042 does not constitute new matter, because a description of the system issuing an alarm is disclosed in the originally-filed specification, for example, at paragraph 0033, lines 7-9; paragraph 0034, lines 8-11; and paragraph 0042, lines 11-16. In addition, a description of the alarm being integral with the processor is disclosed in the originally-filed specification, for example, at Claims 16 and 29. Thus, no new matter has been added.

Claim 39 has been objected to as being unclear as to whether the claimed subject matter is “a storage medium” or a “software”. In response, Claim 39 has been amended to clarify that the claimed subject matter is a storage medium for storing computer-readable software, and that the storage medium stores software for monitoring and analyzing flow in a sewer system.

Claims 1, 2, 4-18, 20-22, 25-31, 33-35, 38-40, and 42-47 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,942,698 to Stevens. Claims 3, 19, 32, and 41 have been rejected under 35 U.S.C. § 103(a) as being allegedly

unpatentable over Stevens. These claim rejections are traversed.

Independent Claim 1 recites a method of monitoring and analyzing flow in a sewer system. The method includes the steps of: collecting, using a monitoring assembly, data representative of actual flow volume in a first location; storing the data representative of actual flow volume in a memory; maintaining, in the memory, previously stored data representative of previous flow volumes; determining a predicted flow volume; and comparing the actual flow volume with the predicted flow volume to yield a difference value.

The predicted flow volume is dependent upon data selected from the previously stored data and a day and time, wherein the day and time each correspond to both the data selected from the previously stored data and the data representative of actual flow volume.

Independent Claim 13 recites a flow monitoring system, comprising a first monitoring assembly having at least one sensor, wherein the at least one sensor is operative to detect data representative of actual flow volume of a fluid substance at a first location; a processor in communication with the first monitoring assembly; a memory, wherein the memory is operative to store the data representative of actual flow volume and a detection time associated with said data; and a central computing device in communication with the first monitoring assembly, wherein the processor is trained to compare the actual flow volume with a predicted flow volume to yield a difference value. The predicted flow volume is dependent upon the data stored in the memory and the detection time associated with said data.

Independent Claim 26 recites an apparatus for monitoring and analyzing flow of a fluid substance in a sewer system. The apparatus of Claim 26 is similar to the system of

Claim 13. Independent Claim 39 recites a storage medium storing software that includes instructions to carry out a method similar to the method of Claim 1.

Thus, each of the four independent Claims 1, 13, 26, and 39 includes a recitation corresponding to the predicted flow volume being dependent upon the data stored in the memory and the detection time, for example, a day and a time, associated with said data. This feature provides the present invention with the advantage that the prediction of the flow volume takes the actual detection time, or the actual day and time, into account. Historically, flow volumes may vary as a function of the time of day, and they may vary as a function of the day of the week, and they may vary as a function of the date. The present invention incorporates these functions into its flow prediction algorithm, thus making the prediction of flow volume more accurate.

By contrast, Stevens does not disclose that the predicted flow volume is dependent upon the detection time, nor that the predicted flow volume is dependent upon the day and the time. In the Office Action, column 3, lines 39-50 of Stevens are cited as disclosing this feature. However, a reading of this passage, and a reading of the entire specification of Stevens, reveals that there is no such disclosure.

Therefore, because each of independent Claims 1, 13, 26, and 39 include the feature of the predicted flow volume being dependent upon either the detection time or the day and time, and because Stevens does not disclose this feature, Applicants submit that each of these claims is allowable over Stevens. Furthermore, because each of Claims 2-12, 14-25, 27-38, and 40-47 depends from one of the aforementioned independent claims, these dependent claims are allowable over Stevens, for at least the reasons discussed above with respect to the

independent claims.

All of the rejections and objections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance, and a notice to that effect is earnestly solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All correspondence should be directed to our address given below.

Respectfully submitted,



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